Temperature Controller

TC544C-P



48 x 48mm

Features :

- 4+4 digits, 7 segment LED dual display
- Auto tune/ Self tune PID
- PID/ ON - OFF control
- TC/ RTD input
- Three set points
- °C/°F selectable
- Field selectable control output (Relay or SSR)
- Dwell timer
- IDM applicable
- Auxiliary output: Relay

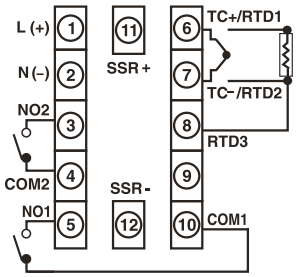
Certifications: CE

Technical specifications

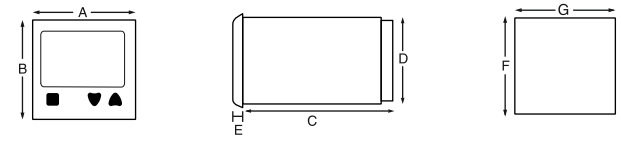
Display specifications			
Display	4+4 digits, 7 segment LED dual display		
Height of display	Upper display: 15.3 mm, Lower display: 8 mm		
LED indication	1. Output 1 ON 2. Output 2 ON 3. Output 3 ON	T: Auto tune A: Adaptive tune S: Dwell timer	
Input specifications			
Inputs	Thermocouple (J, K, T, R, S) / RTD (PT100)		
Resolution	0.1 / 1° for TC/ RTD input (Fixed 1° for R & S type TC input)		
Indication accuracy	**Thermocouple type**	**Temperature range**	**Claimed accuracy**
	J, K, T	-100 to 600 °C	0.1% of full scale ±2 °C
		<-100 & >600 °C	0.25% of full scale ±2 °C
	R, S	100 to 1000 °C	0.25% of full scale ±3 °C
		<100 to >1000 °C	0.50% of full scale ±3 °C
	RTD (PT100)	-150 to 850 °C	0.1% of full scale ±1 °C
Temperature unit	°C/°F selectable		
Input filter (FTC)	0.2 to 10.0 sec		
Sampling time	40ms		
Output specifications			
Control output (Relay or SSR user selectable)			
Relay contact (SPST)	5A resistive @250V AC / 30V DC		
SSR Drive (Voltage pulse)	12V DC, 30mA		
Auxiliary output			
Relay contact (SPST)	5A resistive @250V AC/ 30V DC		
Functional specifications			
Control action	1) PID Control with auto tuning 2) ON-OFF Control		
Proportional band (P)	1.0 to 400.0°C		
Integral time (I)	0 to 9999 sec		
Derivative time (D)	0 to 9999 sec		
Cycle time	0.1 to 99.9 sec		
Hysteresis width	0.1 to 99.9°		
Manual reset value	-19.9 to 19.9°		

Heat- cool	
Control action	PID
Proportional band-cool	0.0 to 400.0°
Cycle time-cool	0.1 to 99.9 sec
Dead band	Programmable from set point low limit to set point high limit.
Settings for alarm output	
Modes	Deviation, Absolute
Hysteresis	0.1 to 99.9°
Auxiliary supply specifications	
Supply voltage	90 to 270V AC/DC (50/60Hz)
Power consumption	5 VA Max @230V AC
Environment specifications	
Temperature	Operating: 0 °C to 50 °C ; Storage: -20 °C to 75 °C
Humidity (Non-condensing)	95% RH
Mechanical specifications	
Mounting	Panel
Weight	116 gms

Terminal connections



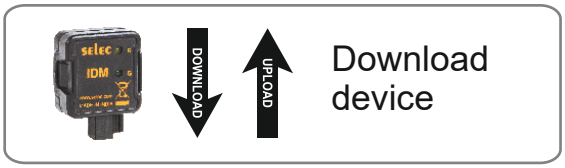
Dimensions (All are in mm)

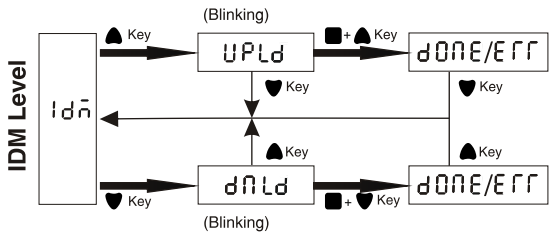


MODELS / DIM	A	B	C	D	E	F	G
TC544C-P	52	52	76	45	3.5	46	46

Independent downloader module (IDM)







IDM Level	
Display	Parameter Description
Idn	Independent Downloader Module
UPLd	Upload from product to IDM
dNLd	Download from IDM to product
dONE	Operation Successful
ErR	Operation unsuccessful

Compliance

Applicable EMI / EMC Standards		
Product Standard : IEC 61326-1		
Category		**Standards Compliance**
ESD Immunity	IEC 61000-4-2	Level III
Surge immunity	IEC 61000-4-5	+/- 2 kV common mode, +/- 1 kV differential mode
Radiated susceptibility	IEC 61000-4-3	Level III, 80 to 1000MHz Level II, 1.4GHz to 2GHz Level I, 2GHz to 2.7GHz
Conducted susceptibility	IEC 61000-4-6	Level II

Applicable EMI / EMC Standards		
Product standard : IEC 61326-1		
Category		**Standards Compliance**
Voltage dips and interruptions	IEC 61000-4-11	**Dips** : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C)70% residual voltage / 25 cycles50Hz / 30 cycles 60Hz (Criteria C) **Interruptions** : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C)
Conducted emission	CISPR-11	Class A (150KHz to 30MHz)
Radiated emission	CISPR-11	Class A (30MHz to 1GHz)
Electrical fast transient	IEC 61000-4-4	Level III

Ordering information

Product code	Output 1		Output 2	Supply voltage	Certification
	Relay	SSR			
TC544C-P	RELAY (5A)	SSR (12V DC)	RELAY (5A)	90 to 270V AC/DC	CE